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# June 2011

In September 2010, the CalPERS Board of Administration authorized the creation of the Office of Enterprise Risk Management (OERM) to enhance risk intelligence and decision-making at CalPERS. As a key part of fulfilling this role, the OERM has worked with Executive Staff and senior management from across the organization to conduct an enterprise risk assessment and create the following risk report. This report is the first in an ongoing series designed to promote transparency, increase risk awareness, and improve risk management at CalPERS. It demonstrates CalPERS focus on areas of management concern, and ensures the most critical risks are fully recognized and promptly addressed.

The risk dashboard shows the overall risk profile broken down into strategic, operational, financial/reporting, ethics/legal/compliance, and investment categories. Under each of these areas, several subcategories represent the aggregate rating of many underlying specific risks. A separate report for each category describes the current state of the risk and planned mitigation strategies, many of which are major initiatives from the 2011-12 Business Plan. These specific reports are still in draft status, as additional mitigation strategies not included in the Business Plan are not yet reflected. Ongoing reports will show changes in the risk profile over time and management's progress in risk mitigation activities.

California Public Employees' Retirement System Enterprise Risk Management - Residual Risk Report				
Strategic	Operational	Financial / Reporting	Ethics / Legal / Compliance	Investments
 <b>Health Programs</b>  <p>HMO and PPO plans are adequately funded and CalPERS is able to offer cost-effective, accessible, quality health care options.</p>	 <b>Business Planning</b>  <p>Business Planning process is effective in creating relevant strategies and efficient in implementation and monitoring.</p>	 <b>Cash Management</b>  <p>Accurate projection of cash sources and requirements, including effective management of receivables.</p>	 <b>Fraud</b>  <p>Protection of CalPERS assets, integrity and credibility through effective detection and prevention and investigation capabilities.</p>	 <b>Investment Policy</b>  <p>The Total Fund is invested consistent with the approved asset allocation policy targets and ranges and all other policy parameters.</p>
 <b>Long Term Care Program</b>  <p>Long Term Care programs are sufficiently funded and third party vendors provide services required.</p>	 <b>Organization</b>  <p>An aligned, effective organization structure which is adaptive to changing requirements.</p>	 <b>Financial / Administrative Controls</b>  <p>Effective control policies and design, implementation and management of controls for decision making, and use of assets, including appropriate segregation of duties and delegation of authority.</p>	 <b>Compliance with Laws and Regulations</b>  <p>Compliance with all relevant laws, rules and regulations, including regulatory reporting, the Bagley-Keene Open Meeting Act, and privacy laws (e.g., HIPAA).</p>	 <b>Active Risk</b>  <p>Active risk is measured by expected and realized volatility of portfolio returns compared to benchmark returns for the Total Fund and asset classes. Active risk is within established limits.</p>
 <b>Pension Funding and Programs</b>  <p>Pension plans provide retirement security for members which are affordable and attractive to employers, maintaining low volatility in contributions and sufficient funding levels.</p>	 <b>Procurement and Contract Management</b>  <p>The process of cost effectively and efficiently acquiring goods or services and managing contracts consistent with applicable laws, regulations and CalPERS policies.</p>	 <b>Fiscal Planning</b>  <p>Effective budgeting and planning which provides appropriate financial resources for the organization to meet its objectives.</p>	 <b>Policy Compliance</b>  <p>Compliance with all CalPERS policies e.g., operational, security, confidentiality, records management, and e-Discovery.</p>	 <b>Concentration</b>  <p>Total Fund concentrations across asset classes including industry, country, currency and security asset type comparing portfolio and benchmark weights to identify significant active weights.</p>
 <b>Actuarial</b>  <p>Actuarial assumptions serve as reasonable forecast of actual economic and demographics conditions. Actuarial methods are consistent with industry standards.</p>	 <b>Business Continuity Management</b>  <p>Effective planning for recovery and business continuity in the event of a disaster, hazard situation, or other business interruption.</p>	 <b>Reporting</b>  <p>Financial and management reporting with integrity which meets management's needs for decision making and legal and statutory requirements for disclosure.</p>	 <b>Ethical Conduct</b>  <p>Adherence to CalPERS standards of conduct, personal trading policy, and conflict of interest policies.</p>	 <b>Leverage</b>  <p>Each asset class is in compliance with leverage policies and impact of portfolio leverage is understood.</p>
 <b>Governance / Leadership</b>  <p>Effective delegations, policies and procedures which result in timely, effective decisions and guide the System to meet its strategic objectives. Includes tone at the top.</p>	 <b>Performance Management</b>  <p>Ability to effectively and efficiently meet business objectives, including identification of appropriate business metrics, regular reporting and monitoring, and measurable improvement plans.</p>	 <b>Administrative Accounting</b>  <p>Administrative accounting is accurate and complete, performed in compliance with all applicable laws, rules, and regulations. Provides for appropriate reporting and sound decision-making.</p>	 <b>Legislative / Regulatory</b>  <p>Regulatory changes do not impede CalPERS ability to accomplish objectives. Training and governance processes adequately mitigate legal risks.</p>	 <b>Counterparty Exposure</b>  <p>Ability of counterparties to meet their contractual obligations is measured and managed.</p>
 <b>Strategy and Policy</b>  <p>Effective strategies and policies which anticipate changing requirements and result in the ability to meet CalPERS vision, mission, goals and objectives.</p>	 <b>Operational Controls</b>  <p>Ensuring the proper level of operational controls is in place to safeguard CalPERS campus, mail, and equipment from damage or theft.</p>	 <b>Investment Accounting</b>  <p>Investment accounting is accurate and complete, performed in compliance with all applicable laws, rules, and regulations. Includes related custodian accounts, pooled investments, valuations, and performance measurement.</p>		 <b>Investment Risk Management</b>  <p>Measurement, management, monitoring and reporting of investment risk and returns. Includes adequacy of resources, tools and governance structure to measure and manage risk.</p>
 <b>Stakeholder Relations</b>  <p>Effective communications and relationships with key stakeholders which maintain a high level of confidence in CalPERS and ensure greater success at achieving objectives.</p>	 <b>Technology / Systems Management</b>  <p>Ability to provide a highly reliable, secure technology infrastructure that meets the information needs of CalPERS.</p>			 <b>Liquidity</b>  <p>Projected amount of liquidity relative to anticipated requirements and ability to fund current requirements without resorting to premature asset sales.</p>
	 <b>Customer / Member Service</b>  <p>Ability to meet and exceed the service expectations of members and employers.</p>			 <b>Investment Controls</b>  <p>Investment control framework in place to effectively manage risk, minimize fund expenses, provide for safekeeping of assets, and operate fund within context of all relevant legal requirements.</p>
	 <b>Human Resources Management</b>  <p>Maintaining an adequate, knowledgeable workforce with sufficient training and skills to meet organizational objectives. Includes hiring and succession planning and labor relations.</p>			 <b>Investment Technology Systems</b>  <p>Investment technology systems reliably provide accurate, relevant data in a secure manner and support the operations and accounting for investment funds.</p>

California Public Employees' Retirement System Enterprise Risk Management - Residual Risk Report				
Strategic	Owner	Current State	Mitigation Strategies	Completion Date
<div><div></div><div>Health Programs</div><div></div></div> <div>HMO and PPO plans are adequately funded and CalPERS is able to offer cost-effective, accessible, quality health care options.</div>	Deputy Executive Officer, Benefit Programs Policy and Planning	PPO and HMO funding is at an acceptable level. Several pilot programs are underway to ensure costs are contained.	Provide continuous monitoring, analysis, and impact response on reform proposals Conduct two health care delivery studies	December 2011
<div><div></div><div>Long Term Care Program</div><div></div></div> <div>Long Term Care programs are sufficiently funded and third party vendors provide services required.</div>	Deputy Executive Officer, Benefit Programs Policy and Planning	Although premium increases have improved the funding level, Long Term Care liabilities still outweigh assets, resulting in a deficit.	Continue scheduled premium increases Negotiation of Long Term Care provider	
<div><div></div><div>Pension Funding and Programs</div><div></div></div> <div>Pension plans provide retirement security for members which are affordable and attractive to employers, maintaining low volatility in contributions and sufficient funding levels.</div>	Deputy Executive Officer, Benefit Programs Policy and Planning	The funding ratio is at approximately 71% and additional contribution volatility or poor investment performance could cause considerable strain for employers.	Improve investment performance / implement enhanced portfolio risk management Promote the enactment of financial market reform Establish a pension policy and research function Publish two retirement security issue papers	March 2012
<div><div></div><div>Actuarial</div><div></div></div> <div>Actuarial assumptions serve as reasonable forecast of actual economic and demographics conditions. Actuarial methods are consistent with industry standards</div>	Chief Actuary	Though currently operating within actuarial standards, CalPERS is conducting a review of assumptions and methodologies to assess associated risk and volatility impacts on employer contributions.	Develop recommendations on risk pooling improvements Review economic actuarial assumptions Conduct Board workshop July 2011	June 2012
<div><div></div><div>Governance / Leadership</div><div></div></div> <div>Effective delegations, policies and procedures which result in timely, effective decisions and guide the System to meet its strategic objectives. Includes tone at the top.</div>	Chief Executive Officer	CalPERS continues to take successive steps to implement policies that strengthen the pension fund's accountability and ethics, and to ensure full transparency.	Complete Board governance project and implement recommendations for greater accountability for audit findings Prohibit payment of placement agent fees from partnership assets Complete implementation of the organizational structure changes Support pending legislation on gifts and post-employment restrictions Complete implementation of special review recommendations	June 2012
<div><div></div><div>Strategy and Policy</div><div></div></div> <div>Effective strategies and policies which anticipate changing requirements and result in the ability to meet CalPERS vision, mission, goals and objectives.</div>	Chief Executive Officer	Over the past few years, CalPERS has aligned the business planning, performance, compensation, and budget processes, resulting in more coordinated strategy and policy.	Develop Policy and Thought Leadership function Establish and staff Enterprise Strategy function Publish retirement security issue papers Expand aligned planning process to 3-5 year timeframe	March 2012
<div><div></div><div>Stakeholder Relations</div><div></div></div> <div>Effective communications and relationships with key stakeholders which maintain a high level of confidence in CalPERS and ensure greater success at achieving objectives.</div>	Deputy Executive Officer, External Affairs	CalPERS is developing a formal program to monitor and respond to stakeholder concerns, and to measure the effectiveness of CalPERS communication strategies.	Conduct Stakeholder Relations risk assessment Implement a strategy that combines marketing efforts across the organization	June 2012

California Public Employees' Retirement System Enterprise Risk Management - Residual Risk Report				
Operational	Owner	Current State	Mitigation Strategies	Completion Date
 <b>Business Planning</b> 				
Business Planning process is effective in creating relevant strategies and efficient in implementation and monitoring.	Deputy Executive Officer, Operations and Technology	CalPERS has recently completed aligning business planning processes with budgeting and performance compensation practices. Further improvements could be made in streamlining the process and expanding the timeframe to take a more strategic approach.	Establish and staff Enterprise Strategy function Expand aligned planning process to 3-5 year timeframe Develop and implement improved performance metrics	December 2011
 <b>Organization</b> 				
An aligned, effective organization structure which is adaptive to changing requirements.	Chief Executive Officer	CalPERS has implemented a new organizational structure to ensure alignment with new PSR system and changing environment.	Complete implementation of the organizational structure changes	December 2011
 <b>Procurement and Contract Management</b> 				
The process of cost effectively and efficiently acquiring goods or services and managing contracts consistent with applicable laws, regulations and CalPERS policies.	Deputy Executive Officer, Operations and Technology	Contract workout session was recently completed, in which several contracting processes were enhanced. Sufficient Board and Executive attention exist to ensure proper contract management.	Complete review of contracting process and implement recommendations	
 <b>Business Continuity Management</b> 				
Effective planning for recovery and business continuity in the event of a disaster, hazard situation, or other business interruption.	Chief Risk Officer	Data is safe from loss, but restoration of IT services could take 4-6 months, depending on disaster severity.	Complete phased implementation of myCalPERS	April 2012
 <b>Performance Management</b> 				
Ability to effectively and efficiently meet business objectives, including identification of appropriate business metrics, regular reporting and monitoring, and measurable improvement plans.	Deputy Executive Officer, Operations and Technology	Many areas have quality performance metrics. Some areas may need additional metrics or revision to existing metrics.	Develop and implement improved performance metrics	April 2012
 <b>Operational Controls</b> 				
Ensuring the proper level of operational controls is in place to safeguard CalPERS campus, mail, and equipment from damage or theft.	Deputy Executive Officer, Operations and Technology	Building and mail security has been tightened in recent months. Fully implementing the building security policy could further reduce the risk of potential damage or theft.	Complete implementation of the building security policy	June 2012
 <b>Technology / Systems Management</b> 				
Ability to provide a highly reliable, secure technology infrastructure that meets the information needs of CalPERS.	Assistant Executive Officer, Information Technology Services	Discrepancies in data between various systems causes concern over data integrity. Implementation of PSR includes considerable operational, technology, and security risks. Deployment of new technologies, e-discovery, and new business applications may introduce new technology risks.	Implement the 2011 Information Security Strategy Implement instant messaging, mobile endpoint, and malicious code policies Test PSR information security Adopt policies and procedures to address the risk of sharing confidential information Perform ERP solution analysis	June 2012
 <b>Customer / Member Service</b> 				
Ability to meet and exceed the service expectations of members and employers.	Deputy Executive Officer, Customer Services and Support	Allocating resources to PSR may cause increased backlogs and impede ability to meet established customer service response times.	Complete phased implementation of myCalPERS	April 2012
 <b>Human Resources Management</b> 				
Maintaining an adequate, knowledgeable workforce with sufficient training and skills to meet organizational objectives. Includes hiring and succession planning and labor relations.	Deputy Executive Officer, Operations and Technology	Human Resources effectiveness could be improved through the use of an automated system. Increasing retirements of key staff heighten the need for robust succession planning and talent management efforts.	Develop and implement a leadership mentoring program Add required knowledge transfer language to consulting services contracts Enhance ability to recruit, develop, and retain a highly skilled team Reduce consultant services	June 2012



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California Public Employees' Retirement System Enterprise Risk Management - Residual Risk Report				
Investments	Owner	Current State	Mitigation Strategies	Completion Date
 <b>Investment Policy</b> 				
The Total Fund is invested consistent with the approved asset allocation policy targets and ranges and all other policy parameters.	Chief Investment Officer	Investment policies are in place for asset classes and Total Fund but independent review and monitoring is limited.	Risks reviewed by Asset Allocation / Risk Unit prior to policy approval Improved systems for compliance monitoring Establish well-defined roles, clearly defined end-to-end process, and improved systems	June 2012
 <b>Active Risk</b> 				
Active risk is measured by expected and realized volatility of portfolio returns compared to benchmark returns for the Total Fund and asset classes. Active risk is within established limits.	Chief Investment Officer	Risk budgeting is currently performed, but only at the Total Fund level.	Extend risk budgeting to asset classes	June 2012
 <b>Concentration</b> 				
Total Fund concentrations across asset classes including industry, country, currency and security asset type comparing portfolio and benchmark weights to identify significant active weights.	Chief Investment Officer	Concentrations are reported across asset classes relative to benchmarks.	Enhance analysis to include forecast risks associated with concentrated positions Provide more timely information to aggregate positions across asset classes	June 2012
 <b>Leverage</b> 				
Each asset class is in compliance with leverage policies and impact of portfolio leverage is understood.	Chief Investment Officer	Program leverage limits are monitored and reported as part of quarterly investment risk report. In addition to this compliance check, analysis of resulting risk implications could provide added value.	Evaluate impact on program and Total Fund risk of the use of leverage	June 2012
 <b>Counterparty Exposure</b> 				
Ability of counterparties to meet their contractual obligations is measured and managed.	Chief Investment Officer	Counterparty credit quality is currently monitored. Related fixed income credit exposures are not captured.	Develop capability to produce reports containing both derivative counterparty exposure and fixed income credit exposure	June 2012
 <b>Investment Risk Management</b> 				
Measurement, management, monitoring and reporting of investment risk and returns. Includes adequacy of resources, tools and governance structure to measure and manage risk.	Chief Investment Officer	Current risk system is used and consistent framework for investment decisions exists.	Enhance Investment Office systems and controls Establish comprehensive Investment Office risk management system and practices	June 2012
 <b>Liquidity</b> 				
Projected amount of liquidity relative to anticipated requirements and ability to fund current requirements without resorting to premature asset sales.	Chief Investment Officer	Investment cash forecasts regularly prepared. Liquidity asset class being implemented.	Fully implement the liquidity asset class	July 2011
 <b>Investment Controls</b> 				
Investment control framework in place to effectively manage risk, minimize fund expenses, provide for safekeeping of assets, and operate fund within context of all relevant legal requirements.	Chief Operating Investment Officer	Investment Office wide governance structure for operating risk has been developed but not fully implemented.	Implement new internal equity portfolio construction system and consolidated investment book of record Transition to new service model with master custodian Implement new travel policy, enhance restricted trading policy process, and train staff Complete financial reporting reengineering project Implement operating event measurement and escalation processes	June 2012
 <b>Investment Technology Systems</b> 				
Investment technology systems reliably provide accurate, relevant data in a secure manner and support the operations and accounting for investment funds.	Chief Operating Investment Officer	In-depth evaluation of systems completed. Custodial bank contract awarded. Data integrity and system integration could be improved. Improved timeliness, reliability, and quality of data necessary to support capital allocation decisions and performance monitoring.	Implement new equity portfolio construction system and consolidated book of record Implement new book of record for public assets Develop books of record strategy for private assets Implement risk management IT solution Establish Investment Office data control system	June 2012